What is claimed is:

1. A method for use in assembling a microelectronic circuit package, comprising:

providing a package substrate;

applying a polymer material to a surface of said package substrate;

attaching pins to said package substrate, through said polymer material, by solder reflow; and

allowing said polymer material to cure about solder joints associated with said pins.

2. The method of claim 1, wherein:

attaching pins includes placing solder elements in the polymer material in desired pin locations.

3. The method of claim 2, wherein:

said solder elements include solder balls.

4. The method of claim 2, wherein:

attaching pins includes pressing a pin toward said package substrate at the location of a solder element.

5. The method of claim 2, wherein:

attaching pins includes using a jig to press multiple pins toward said package substrate at the locations of solder elements.

6. The method of claim 1, wherein:

applying a polymer material includes screen printing said material on said surface.

7. The method of claim 1, wherein:

attaching pins to said package substrate includes placing said pins in a jig and applying pressure to said jig at a temperature that equals or exceeds a melting temperature of the pin solder so that the pins are pressed through the polymer material.

8. The method of claim 1, wherein:

said polymer material includes a no flow material.

9. The method of claim 1, wherein:

said polymer material has fluxing capabilities.

10. A method for use during fabrication of a microelectronic device package, comprising:

providing a package substrate having a plurality of contact pads on a surface thereof;

attaching pins to said plurality of contact pads by solder reflow; and

applying an encapsulation material about solder joints associated with said pins, said encapsulation material to maintain a location of said pins on said package substrate during subsequent high temperature processing.

11. The method of claim 10, wherein attaching pins includes:

placing said pins in a jig;

applying solder to at least one of the following: said pins and said contact pads;

aligning said jig with said package substrate; and

applying pressure to said jig at a temperature that equals or exceeds a melting temperature of said solder.

12. The method of claim 10, wherein:

applying an encapsulation material includes applying a no flow material.

13. The method of claim 10, wherein:

said encapsulation material includes at least one of the following: an epoxy-based material and a polyimide-based material.

14. A substrate for use in a microelectronic circuit package, comprising:

a plurality of pin contact pads on a first surface of said substrate;

a plurality of pins soldered to pin contact pads on said first surface of said substrate; and

an encapsulation material surrounding solder joints associated with said plurality of pins, said encapsulation material preventing movement of pins when said substrate is subjected to high temperatures.

15. The substrate of claim 14, wherein:

said encapsulation material includes a polymer material.

16. The substrate of claim 14, wherein:

said encapsulation material includes a no flow material.

17. The substrate of claim 14, wherein:

said encapsulation material includes at least one of the following: an epoxy-based material and a polyimide-based material.

18. A microelectronic device comprising:

a package substrate having pin contact pads on a first surface thereof;

a plurality of pins soldered to said pin contact pads on said first surface of said package substrate;

an encapsulation material surrounding solder joints associated with said plurality of pins, said encapsulation material preventing movement of pins when said microelectronic device is subjected to high temperatures; and

a microelectronic die connected to said package substrate, said microelectronic die having bond pads that are conductively coupled to said pins through said package substrate.

19. The microelectronic device of claim 18 wherein:

said microelectronic die is connected to said package substrate using a lead free solder having a relatively high melting temperature.

20. The microelectronic device of claim 18 wherein:

said encapsulation material includes a polymer material.

21. The microelectronic device of claim 18 wherein:

said encapsulation material includes a no flow material.

22. The microelectronic device of claim 18 wherein:

said encapsulation material includes at least one of the following: an epoxy-based material and a polyimide-based material.

23. The substrate of claim 15 wherein:
said polymer material comprises a cured polymer material.

24. The substrate of claim 15 wherein:
said polymer material has fluxing capabilities.

25. The substrate of claim 15 wherein:
said polymer material is selected from the group consisting of one or more of Cookson 2071E, Questech EF71 or LF-8, Advanced Polymer Solutions (APS) UFR 1.0 to 1.5, Kester Solder SE-CURE® 9101, Emerson & Cuming RTP-100-1, Sumotomo CRP 4700, and Loctite FF2000 and FF2200, in any combination.

26. The microelectronic device of claim 20 wherein:
said polymer material comprises a cured polymer material.

27. The microelectronic device of claim 20 wherein:
said polymer material has fluxing capabilities.

28. The microelectronic device of claim 20 wherein:
said polymer material is selected from the group consisting of one or more of Cookson 2071E, Questech EF71 or LF-8, Advanced Polymer Solutions (APS) UFR 1.0 to 1.5, Kester Solder SE-CURE® 9101, Emerson & Cuming RTP-100-1, Sumotomo CRP 4700, and Loctite FF2000 and FF2200, in any combination.

29. The microelectronic device of claim 18 wherein:
said microelectronic die is attached to said package substrate with a plurality of die attach contact pads on the package substrate in contact with a corresponding

plurality of solder bumps on bond pads on a surface of said microelectronic die, the solder bumps comprising a high melting temperature, lead-free solder.

30. The microelectronic device of claim 18, further comprising:

underfill material between said microelectronic die and said package substrate.

31. A substrate for use in a microelectronic circuit package, comprising:

a plurality of pin contact pads on a first surface of said substrate;

a plurality of pins soldered to said pin contact pads on said first surface of said substrate; and

a cured polymer material about solder joints associated with said pins.

32. The substrate of claim 31 wherein:

said cured polymer material has fluxing capabilities.

33. The substrate of claim 31 wherein:

said cured polymer material is selected from the group consisting of one or more of Cookson 2071E, Questech EF71 or LF-8, Advanced Polymer Solutions (APS) UFR 1.0 to 1.5, Kester Solder SE-CURE® 9101, Emerson & Cuming RTP-100-1, Sumotomo CRP 4700, and Loctite FF2000 and FF2200, in any combination.

34. The substrate of claim 31, further comprising:

a microelectronic die attached to the substrate.

35. The substrate of claim 31 wherein:

a layer of said cured polymer material enshrouds a plurality of solder joints associated with said pins.

36. The substrate of claim 31 wherein:

a separate portion of said cured polymer material enshrouds an individual solder joint associated with each of said pins.

37. A microelectronic device comprising:

a package substrate having pin contact pads on a first surface thereof;

a plurality of pins soldered to said pin contact pads on said first surface of said package substrate;

a cured polymer material about solder joints associated with said pins; and

a microelectronic die connected to said package substrate, said microelectronic die having bond pads that are conductively coupled to said pins through said package substrate.

38. The microelectronic device of claim 37, further comprising:

underfill material between said microelectronic die and said package substrate.

39. The microelectronic device of claim 37 wherein:

said cured polymer material has fluxing capabilities.

40. The microelectronic device of claim 37 wherein:

said cured polymer material is selected from the group consisting of one or more of Cookson 2071E, Questech EF71 or LF-8, Advanced Polymer Solutions (APS) UFR 1.0 to 1.5, Kester Solder SE-CURE® 9101, Emerson & Cuming RTP-100-1, Sumotomo CRP 4700, and Loctite FF2000 and FF2200, in any combination.

41. The microelectronic device of claim 37 wherein:

a layer of said cured polymer material enshrouds a plurality of solder joints associated with said pins.

42. The microelectronic device of claim 37 wherein:

a separate portion of said cured polymer material enshrouds an individual solder joint associated with each of said pins.

43. The microelectronic device of claim 37 wherein:

said microelectronic die is attached to said package substrate with a plurality of die attach contact pads on the package substrate in contact with a corresponding plurality of solder bumps on bond pads on a surface of said microelectronic die, the solder bumps comprising a high melting temperature, lead-free solder.